AMERICAN JOURNAL
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PHOTOGRAPHY

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PRINT COMPETITION

ALL subscribers to the AMERICAN JOURNAL OF PHOTOGRAPHY are eligible in this competition. The decision as to the merits of the pictures will be made by an acknowledged authority on technical photography, and also by two well-known artists.

CLOSING DATES	CLASS
No. 1. Closed,	Water pictures (not seascapes).
No. 2. Closed,	Landscapes.
No. 3. Closed,	Animal pictures.
No. 4. Closed,	Seascapes.
No. 5. Nov. 20th,	Interiors.

The criticisms of the awarded pictures will be published in the AMERICAN JOURNAL OF PHOTOGRAPHY.

THE AWARDS

1st, ... Ten Dollars ($10.00)
2nd, ... Five " ($5.00)
3rd, ... Three " ($3.00)

RULES AND CONDITIONS

All prints must be mounted, with the name of the competitor written on the back of the card. Title may be placed on front.

The number of prints submitted in each class shall not exceed two for any one sender.

No prints previously awarded prizes will be admitted.

Each contestant must be a subscriber to the AMERICAN JOURNAL OF PHOTOGRAPHY. Subscription may accompany the entry of the prints.

Prints must be sent fully postpaid.

When the sender desires the return of prints, stamps must be enclosed: otherwise the prints will not be returned.

Awards will be made in each case on the 15th of the month following entry.

AWARDS FOR WATER PICTURES

"A Day in June,".....Charles H. Carroll, Elmira, N. Y.
"Cobb's Creek,".....Wm H. Ingram, Phila., Pa.
"Ohio Canal,".....E. C. Hrabak, Cleveland, Ohio.

AWARDS FOR LANDSCAPES

None.

AWARDS FOR ANIMAL PICTURES

"Kingfisher,"..... Wm. L. Baily, Ardmore, Pa.
"A California Thoroughbred,"
W. H. Hill, Pasadena, Cal.
"Three of a Kind,".....L. H. Hutchins, Pasadena, Cal.

AWARDS FOR SEASCAPES

"The Return of the Fishermen,"
T. Edw. Schiedt, Philadelphia, Pa.
"By the Morning Light,"
T. Lloyd White, Washington, D. C.
"After the Storm,".....Arthur M. Hay, Philadelphia, Pa.

REPORT OF JUDGES ON PRINT COMPETITION

IT is with pleasure that the judges report on the merit of the work submitted this month for competition. A number of most beautiful examples have been offered, evincing taste and skill in selection, and artistic feeling of the highest degree.

We have awarded the First Prize to Mr. Schiedt, for the picture entitled "The Return of the Fishermen." The technique is excellent and the pictorial qualities superb. The human nature in the scene also adds much to the interest of the subject.

The Second Prize we have given to Mr. T. Lloyd White, for the picture entitled "By the Morning Light."

In this picture, the photographer has shown excellent judgment in selection of point of view, and his quick perception of that in nature which is fitted for the purposes of art, and which an ordinary observer might have passed by, or have rejected as not worthy; but the photographic artist, in this scene has given us a delightful impression of the sea in all its beauty, only such as a painter of high skill could achieve.

The Third Prize has been awarded to Mr. Arthur M. Hay, for the picture entitled "After the Storm."

Signed: WILLIAM H. RAU,
A. T. COSTELLO,
HENRY P. OSBORNE.

AMERICAN JOURNAL OF PHOTOGRAPHY:

AUSTIN C. LEEDS, Publisher—

Dear Friend—Please accept my thanks for the check for ten dollars, being the award for First Prize in the Animal Picture Competition. I am very proud of the distinction.

Very sincerely,

Nov. 10, 1899. WM. L. BAILY.

SEASCAPES

THE PRIZE PICTURES

PERHAPS nothing in the whole range of art is so difficult to depict in their true relation as the sea and sky. The harmony is so exquisite in the whole scale, from high to low, that the introduction of the slightest discord mars the effect. Its variety of changing forms and hues, its power, grace and majesty elude the subtle touch of the most skilled painter to catch any phase of its lovely inconstancy, or any shape of its fury when lashed by the wind.

Even in its gentler moods, when with soft murmurings, it sports with the beached margin of the shore, so mockingly transient is the exquisite modeling of the little waves that the eye catches only furtive gleams of the beauty which vanishes ere the most rapid pencil can trace it down, and the painter is compelled to trust to the memory of the impression upon his vision.

Photography has taught the painter more than all the old masters combined, about the moving mass of waters. The old masters, even the Venetian painters, who lived upon the very bosom of the sea, give us only now and then little glimpses of the sea as a background setting to their pictures.

It was left to modern art, especially the present century art, to study the volume of the sea for its own beauty, and not as a mere conventional background.

Turner comes very near nature in the rendering of the mass and volume, with its mobility and peculiar translucency, but he fails to catch the perfect freedom in the flow that rolick at the top of the wave when the spray seems hardly to know which to obey, the wind's bidding or the impatient, onward urging of the main wave, striving to gain the shore.

It is our pleasure to give the readers of the AMERICAN JOURNAL such beautiful reproductions of some of the sea changes.

Mr. F. Edward Schiedt's "Return of the Fishermen," to which the Judges awarded the first prize, is a beautiful composition in which the sea and sky are most effectively introduced. The sky, in this picture, gives us the impression of extreme distance and

The Return of the Fishermen — T. EDW. SCHIEDT

atmosphere, and the sea, especially where the wave has broken on the beach, affords additional delight by the beautiful reflection. The grouping of the figures and the boats is admirable, giving animation and motion to the scene.

It must have been difficult for the Judge to choose between the first two prizes. We confess we would like to have given first prize also to Mr. T. Lloyd White's picture, "By the Morning Light."

His view of the sea and sky is full of that poetic feeling and artistic conception which would win golden opinions from those who are familiar with the work of some of our most eminent sea painters.

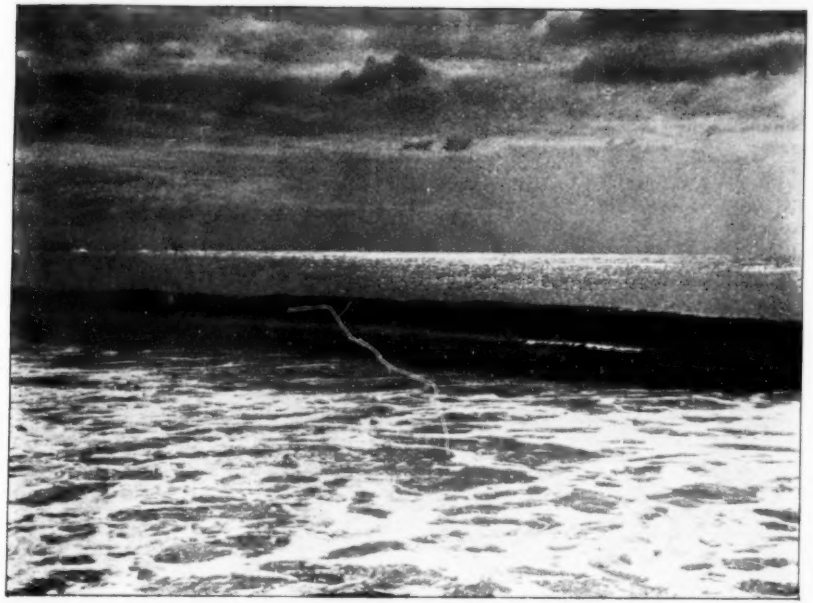
Mr. A. M. Hay's picture (3rd prize), "After the Storm," has good qualities, but we would prefer the selection of a point of view which would have excluded the too obtrusive and monotonous pier.

There were a number of other excellent sea scenes, notably those by Miss Lilian G. Wakefield and Mr. E. O. Eyer, worthy of much commendation for composition and selection of view—but, the awards must go to the three highest on the list.

DEFECTS IN VIGNETTING

WILLIAM BROOKS

UNLESS the vignetting of the print is properly done, the photographic bust will look much better printed in an oval. The worst defect is the apparent cutting off of a portion of the head by an indistinctness or blurring of the hair, produced by the light striking upon the edge of the cut-out, and continuing its action, as it were, around the corner. This may be avoided by proper adjustment of the grader. In order to avoid the appearance of a hard, well defined line, on the print, the printer raises the vignetter higher from the negative so that the shades may blend better and hence cause halation, by reason



By the Morning Light

T. LLOYD WHITE

of the strong light, especially when the vignetting is done in the direct sun light. The phenomenon is a real case of halation, as much as that produced on a plate by the light coming through a window.

The blurring is really diffraction fringes, and however interesting to the student of physics, is very annoying to the printer, as far as the space above the head is concerned; but on the body of the bust picture, that is at the other end of the vignette, it is somewhat of an advantage, as it gives a nice gradation and softness.

To remedy the defect about the head simply paste on thickness after thickness of tissue paper on the vignetter until this portion comes out bold and has its proper relation to the background, on the sides or ends. As many as four thicknesses may be found necessary. Some judgment too is necessary in regulating the distance from the plate and also the size of the opening.

Busts require less distance than standing pictures, that is three quarter lengths; half inch for busts to one and a quarter for three quarter positions. The opening for busts should be a clear three-eights to half an inch outside of head or three-fourth figures.

One particular shape of opening should not be applied to every case.

The pear shape vignetter is generally employed, but frequently, it is necessary to cut an opening somewhat in line of the figure. One of the handiest tools to cut vignetters is a curved-blade shears, similar to those metal workers use. With such shears, an objectional corner or edge can be clipped off without removing the grader from the frame.

Vignetting is sometimes very effectively employed with landscape subjects, especially where the borders of the picture present unsightly objects like fence rails, or something similar. These objects are made less obstrusive by the vignetting, when the process is properly done.

Even when the margins of the landscape view are not objectionable, the picture may be increased in effectiveness by the indefinite blending off of the picture into the white surface of the paper.

Landscape vignetting however requires as much conscientious treatment as portraiture vignetting. Ovals or circles of course are the only forms adaptable.

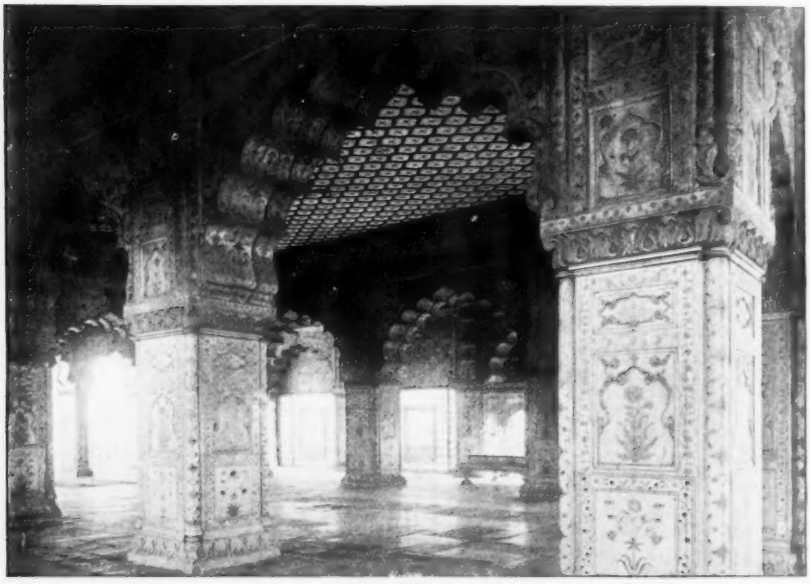
After the Storm

ARTHUR M. HAY

TEMPLES AND TOMBS IN INDIA

CHARLES R. PANCOAST

INDIA is prolific of subjects for the camera. To do it justice would be an utter impossibility, the few subjects shown may be likened to a faint line in an etching, to make a suggestion and require the beholder to complete the idea and



Diwan-i-khas—Delhi C. R. PANCOAST

imagine the great possibilities. It was my fortune a few years ago to spend several months in India, and while there to secure some of the choice bits in scenery and architecture. The Royal Botanical Gardens at Calcutta, situated on the banks of the Hooghly River, about five miles below and on the opposite bank from the city, contain many remarkable specimens of tropical plants, the chief object of interest being the great Banyan tree, whose

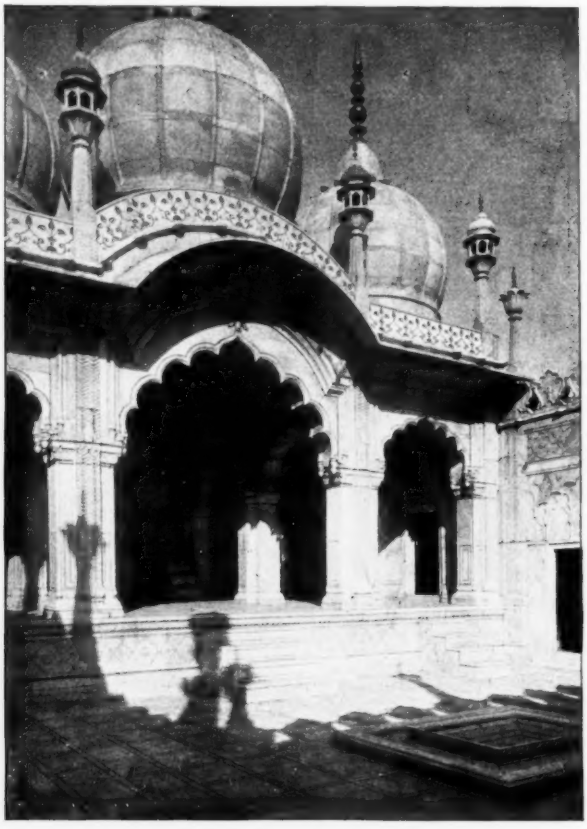
far-reaching branches cover a space of upwards of 5,000 square feet. Leading to this wonderful growth is the avenue of Sago Palms. The smooth symmetrical trunks of these trees reaching to a height of forty to fifty feet, there bursting into a tuft of

Taj Mahal and Valley of Jumna from Agra Fort C. R. PANCOAST

graceful leaves, bordering as they do a road nearly one-half a mile in length, form an avenue the beauty of which can hardly be underestimated.

Of the interior cities, Agra, no doubt, contains the finest specimens of the handiwork of the Mogul architects. If there

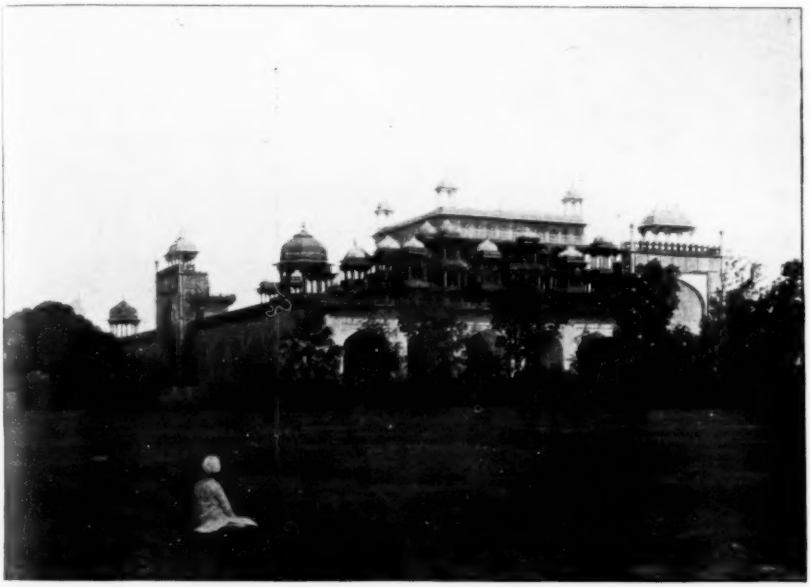
were nothing else, to say that the Taj Mahal was within its confines would be sufficient to make it the Mecca of all lovers of the truly beautiful. It has been aply called a "poem in marble," and when seen from the Palace of Akbar, in Agra Fort, framed



Moti Mussid (Pearl Mosque), Delhi C. R. PANCOAST

by an archway of marble and resting in its bed of luxuriant tropical foliage, with the winding Jumna close at hand, it is indeed the brightest jewel of the "Gorgeous East." No pen description can do justice to this marvel of architectural beauty, of which Bayard Taylor says, "The Taj truly is, as I have already

said, a poem. It is not only a pure architectural type, but also a creation which satisfies the imagination, because its characteristic is beauty. . . . When seen from a distance, so like a fabric of mist and sunbeams, with its great dome soaring up, a silvery bubble about to burst in the sun, that even after you have touched it, and climbed to its summit, you almost doubt its reality. The four minarets which surround it are perfect—no other epithet will describe them."



Tomb of Akbar Secundra, Agra C. R PANCOAST

Within the city of Agra the chief attraction is the fort built by Emperor Akbar, about the year 1560. It is entered on the southern side, through a magnificant portal known as the Elephant Gate. The large octagonal tower overlooking the moat and commanding the entrance, gives the fortress an air of impregnability that is truly imposing. To the modern eye, the beautiful architecture and elaborate ornamentation of the fort seem out of place, yet the great Mogul had an eye to the beautiful as well as the useful, and while it is pleasing to look upon, it is a marvel of

strength and security. After passing through the Elephant Gate, the visitor is shown the famous Moti Musjid or Pearl Mosque, as it is poetically and justly termed. It was built during the reign of Shah Jehan, and while of comparatively small dimensions is absolutely perfect in form and proportions. Such is the elaborate finish of this building that it is estimated to have cost three lakhs of rupees ($1,200,000). It, like the Taj, is constructed of white marble, which, under the fierce Indian sun, is bleached to a dazzling whiteness. The three domes surmount a deep corridor, open toward the east, and divided into three aisles by a triple row of the most exquisitely-proportioned Saracenic arches.

The Tomb of Akbar is situated at Secundra, about six miles from Agra. It stands in the center of a large square garden which has a lofty gateway of red sandstone in the center of each of its sides. From these four gateways, which are upwards of seventy feet in height, four stone causeways converge to a central platform on which the mausoleum stands. The doorways on the tomb proper are marvels of beauty. The peculiar form of the arches, and the exquisite ornamentation made in part by elaborate carvings and vari-colored stones, so placed as to form geometric figures, the colors so blended as to heighten the effect of each, and yet make a harmonious whole, at once rivet the attention of the observer with a fascination almost irresistable.

THE SWING-BACK

(A Chapter for the Beginner.)

W. H. R.

IN selecting photographic apparatus it would hardly be wise, on the part of the beginner, to emulate Diogones, who threw away his earthen drinking cup on discovering a man drinking from the hollow of his hand. Though a skilled workman may do creditable work with any kind of tools, it should also be remembered that his skill has been acquired by long experience in the handling of the best tools.

To expect the beginner in photography to effect good results with inferior instruments, is as about as reasonable as to demand of the mere tyro in art, beautiful effects in light and shade with the use of a single color, because, on occasions, the great masters in painting have given to the world sublime conceptions in monochrome.

There will be time enough when skill has been attained with first-class apparatus, and emergency calls for the mustering into service, instruments, time honored but retired from the lists, to let him exercise his ingenuity, and like the violin virtuoso, whose string breaks at a critical moment in the grand symphony, perform marvels without marring the general effect, by reason of the limitation of means at his disposal.

There are many appliances fitted by ingenious workmen to the camera which add much to the cost, yet subserve general utility. It is needless to say, "such accessories are by no means essential." What is essential, is first, a rising-front to which the lens is attached, and second, a swing-back for securing vertical lines in the picture, where architecture forms an essential part. A rising front (which is self explanatory) is of value when one wishes to include more of the upper portion of the picture, that is, the sky end,—and in architectural subjects where the spire or steeple of the building directs its course, and when it is not desirable to tilt the camera upward.

As our topic is the swing-back, the reference to the rising front is pertinent.

Select a camera allowing considerable latitude of rising front, since the device is useful also in securing, when desirable, more foreground, by lowering the board without altering the position of the camera on the tripod.

When much elevation or depression of the front board is required, care should be taken to observe whether the lens you employ covers the portion of the plate thus drawn upon in either direction.

Lenses of insufficient covering power, cheap varieties, or good lenses intended only for small size plates called into requisition for work on larger areas than their makers intended them to do, show a falling off in definition, where the outer rays strike the margin of the plate in the strained quarter.

The circle of light, in such cases, is not large enough, and the lens is overworked.

But even supposing one has a lens of good covering capacity, and yet finds that he has not sky enough on the ground glass to suit; or that the top of some tall spire is cut off, even when he pushes up the front to its highest, what is to be done? Naturally he tilts up the camera skyward. But if the beginner has done this feat for the first time, and is an observing man, he shall perceive at once that the top of the building is inordinately narrowed; by reason of the peculiar perspective from the point of vision. The lens is faithful in its delineation (supposing it to be a rectilinear lens) but our eyes correct, from habit, the exaggeration of perspective, and when an artist represents such a building from such an angle of view, he makes allowance for the true state of things which is artistically untrue.

The Greeks used to purposely exaggerate the top dimensions of the tall columns of their temples, so that they did not look distorted to the eye, as they would if the shaft were of the same diameter at bottom and top.

If we will take a sidewise look at the camera, pointed upward, we shall see that the back, that is the ground glass end, is not parallel with the line of the building.

To make the back parallel and so secure parallel, or almost parallel lines, as the subject may demand, we call into requisition the swing-back of the camera. It is a simple enough contrivance and at once advertises to the beginner its mode of action.

To get the lines vertical in the tilted camera we shall find it

is necessary to push in the swing at the top. This swing should be made to move in both directions.

The swing-back is not only essential to the proper representation of objects having parallel vertical lines, as buildings, but also for photographing any view which requires tilting of the camera out of the horizontal position. For instance, a view of a high mountain, like El Capitan, would with a tilted up camera, have the appearance of receeding, and would thus detract much from its grandeur in the picture. In connection with the subject of movable front we may say that the shape of the bellows is sometimes accountable for the cutting off of a portion from the view.

This is the case when the bellows is conical in shape, that is, diminishes in body from the back forwards. On raising or lowering the lens-board of a camera with a conical bellows the folds of the forward part obstruct the view. This obstruction is greater, the shorter the focus of the lens employed, for obvious reasons.

The conical bellows folds up easily into a small compass, and adds much to the neat and campact appearance of the camera ; but these excellencies are counter-balanced by the superior advantages of the bellows having the same base, back and front.

So much for description of the swing-back ; now a word or two about its proper use, or rather about discrimination in its use.

As Shakespeare says by the mouth of Isabella : "O ! it is excellent to have a giant's strength, but tyrannous to use it like a giant;" and a compromise between the absolute vertical, as it actually is, and the demands of visual perspective must often be made.

This compromise is more necessary when a short focus wide angle lens is used. Even when the lines are made rigidly vertical, the picture gives the impression that the structure is top-heavy. It seems to bulge out at the top and it is only by measurement that one is assured that the photographer has his lines all right and has conscientiously observed the parallelism. So it follows, that even in a picture where long vertical lines are a feature, the eye naturally demands a deviation from the strict observance of the set method of representation.

Of course this is a subject difficult to give advise upon, and we merely call attention to it to prevent the amateur of true artistic perception from doing despite to his sense of the eternal fitness of artistic things, by rigid and uncompromising observance of the old established dogma, in the use of a swing-back.

STREET PICTURES

THE question has often presented itself to me, while enjoying the photographic pictures at the exhibitions, why the modern school of photography so seldom avails itself of the artistic effect capable with architecture? By architecture, I mean the ordinary buildings in our city streets—houses, as Bacon expresses it, designed to live in ; the right trim, tidy house or cottage, or even the commercial structure, and, under limitations, the "sky-scraper."

Some ram-shackle, tumble-down barn, or dilapidated, uninhabitable hut, is of course siezed upon with avidity, as an element of the greatest pictorial value, worth going miles through quagmires to secure. I would be the last one to say that such objects, by some law of association, are not highly suggestive, and, when properly handled, even poetic; nevertheless architecture of the thrifty sort is just as capable of exciting pleasurable emotion, when æsthetically treated.

Some of the French and German painters, and a few of our American painters of the present day, have shown in their pictures of the city streets, the beautiful effects of line and color. I can call to mind a very familiar one of Madison Square and Broadway Crossing. This, as everybody knows, is the busiest place of a busy city, and though we may have passed and repassed the place many times in a day, it probably never occurred to us that the prosaic and intensely practical-looking sky-scrapers, the tangled mass of horses, drays, carriages and people would give us, when almost literally transcribed to the canvas, pleasurable sensation and positive delight, increased by the fact of the novelty of the presentation. It seems almost like Dean Swift's method of extracting sunbeams from cucumbers.

After the painter of this picture had given us this revelation, we have frequently seen the place under similar beautiful aspects, —though we have often been looked at very curiously and rather compassionately by the matter-of-fact policeman, who no doubt imagined us some Reuben from the backwoods, smitten with awe at the marvels of Gotham.

And in my own city, Philadelphia, I have often delighted myself with the contemplation of the beautiful effect, under certain conditions of atmosphere and light and shade, of Broad Street near the Masonic Temple.

The brilliant light, enveloping everything at noon, shows the gorgeousness of color and the multiplicity of form, yet nothing is remarkable. The row of houses, the trees, the church at the corner of the streets, the busy passer-by, are uninteresting as elements of a picture. But look again at the same scene towards sundown; a softness suffuses every object, the sky seems aglow, the roofs of the houses are bathed in a beautiful light, the houses themselves are in half shadows, the trees fruitful with gradations, the church on the corner is transfigured.

Evening paints with broad touches, obliterating unmeaning detail. It gives the beauty of masses; the imagination is stimulated; we have all the conditions of harmony and beauty for a picture; the dominant light, the subordinate reflections, the shadows, the deeper shadows, the deepest shadow.

A street, which crosses the rectangular streets diagonally, affords excellent opportunity for pictorial representation. The point of view thus chosen adds to the effect, as it gives the idea of motion to the picture by making the general trend of the street an oblique line across the picture. If the lines of the street are taken so as to give the view of the curbing parallel, the effect of life and animation is destroyed, and you have only an instantaneous petrified picture of a street with arrested motion, as if some head of Medusa had turned the people into stone.

The foreground of street pictures is apt to be very complex, full of shifting masses of people and moving vehicles,—but if properly chosen, the complexity adds further to the means of suggesting motion in the view.

A rainy day offers peculiar advantages for securing artistic effect; the reflections from the pavement are often of especial interest to the scene.

Night scenes in the streets are also possible with the modern anti-halation plate, and often beautiful, especially when the shadows and high lights are harmoniously blended. But with street scenes at night the complexity of the source of illumination requires great judgment to secure proper shadows and to give coherence to the various elements.

There is, however, an effect of loneliness in night scenes of city streets which is nearly poetic in power of suggestion to the imagination.

Though somewhat foreign to the topic of this paper, I cannot help suggesting the pictorial value of public gatherings, the crowds at railway stations, race courses and modern sports.

Such subjects are worthy of a more artistic treatment than they get from the average snap-shotter. It is really surprising that athletic sports, such as cricket, lawn tennis, base ball, etc., should not suggest inspiration to artistic photoraphers.

The vigorous action of the men, in a costume which displays the forms of the limbs, the elegance of female dress, the pleasing scenes in which such sports frequently take place, supplying a landscape setting, ought surely to tempt artistic photographers, and I am sure they would carry the public with them. We do not mean to say that cricket matches (*et al*) are not photographed, but then the object is rather to prove that the shutter can take moving objects in less than a thousandth of a second than to show the rich material for artistic manipulation.

The English painters, Firth and Herkomer, have, I believe, worked in this direction very effectively, but I cannot call to mind any other painters. The photographs of games and sports, as we have just said, are legion, but it is an accident, of which the taker is never conscious, if any are artistically presented.

PHILADELPHIA PHOTOGRAPHIC SALON

A VERY difficult matter it is, to pass judgment upon work of a character which we ourselves are not able to produce, whatever may be our opinion of it, from the personal point of view. What is left the critic to do? To give expression to his own opinion—nothing more. But he runs the risk, in venturing his opinion as to the merits or defects of a special kind of work which is receiving the approbation of an ever-increasing class of photographic artists, of showing to those who are in the ranks, his apprehension and his insight, whether broad or narrow, but nothing in the least of the relative value of the work in comparison with other work.

It is the duty of the critic to come to learn from the picture if it has had merits sufficient to get it a place in the Salon exhibition. For we should remember that the judges who admit or turn down a picture, do it, not from arbitrary prejudice, but with the conviction of its beauties or its lack of pictorial value.

And so, when we come to examine the pictures at our salons, let us not be afraid to condemn or admire also; for art, like poetry, is addressed to the unprejudiced world at large, not to a special jury of professional masters. The technical qualities are only means to the public end, and, after all, the question resolves itself into this: how far do the pictures tend to the object of all the fine arts; refined pleasure. To discover the degree in which a photographic picture fulfills this condition should be our object in criticism.

Therefore, banish all preconceived ideas when you come to judge. Let the picture instruct if it can, and, if you derive a lesson therefrom, let the public receive the impression it has given you. In this way, if the picture is worthy, you will come to enjoy it, not to find fault. Sometimes we find fault because we are afraid to admire amiss.

Philadelphia is having its second great photographic salon, this year. The success which attended the last salon, and the stimulus it gave during the year to renewed efforts, have enabled the managers to present again to the public another goodly assemblage of photographic art.

We believe it is necessary to have, at least three observations of the motion of a heavenly body to determine whether or not it is to have an eliptical orbit—insuring its return,—or some other conic section, which shall send it wandering into the infinity of space. We have only had two elements in the course of the curve of our progress in photographic salons, and it may seem presumptous to begin to calculate its future course in art; yet, there are sufficient indications to determine its tendency. While photography as an art has gained in some directions, it has lost considerably in others. Photography has shown itself weak in its means of telling a story, that is in genre photography. There was not a single attempt at composition in this direction. Of course, we do not know whether any examples were submitted to the judges, but if there were, they were not of sufficient merit to be hung. The demands of genre are insurmountable by photography. Within a limited field it may be sucessful. The drama of everyday life, or rural life, with its picturesque setting of landscape, presents scope for the exercise of its limitations—but, when photography attempts scenes of pathos, suffering and passion, it makes the presentation deplorable. We are glad to see that the author of the picture exhibited at the last Salon, representing the agony of Golgotha, found no imitators, though it was hard to bear the repetition of himself.

Sensationalism in art is an abnormity, an adventitious growth, contributory to the debility and decay of art. It has aptly been defined as "misapplied vigor," attracting by its singularity for the moment, but only for the moment. Its character is so contrary to nature that, at every repeated view we take of it, the expression becomes weaker and weaker, till at last we turn from it, in weariness, disgust, or horror. We think this is the impression which the picture of the Savior conveys, and which the photographer had the audacity to delineate and the judges to hang. The study of the nude we are glad to see relegated to the confines of the brief corner it occupies. It was rather conspicuous at our last Salon.

The Salon has demonstrated the wonderful and still continuing growth of photography in portraiture and landscape, and, judging from the richness of material presented, there is a grand future for us in these two provinces. Selection is the principle on which photographic invention must work in landscape.

A subject happily adapted from nature will never deprive the artist of the credit due to invention ; for, indeed, the mere faculty of inventing an incident is more common than the nice perception of that in nature which is fitted to the purposes of art, which ordinary observers reject or fail to see until it is transferred to canvas or paper. There are pictures of landscape scenery at the Philadelphia Salon which would be considered inspirations if they had been transferred to the canvas by paint and brush, instead of lens and silver-bromide. Gentle declivities, luxuriant meadow-flats, sprinkled with flocks and herds; well-cultivated uplands, with farms and picturesque cottages, bits of forest and wood of matchless beauty, such as Constable painted. One hardly misses the color, so admirably do they express the true tones and arrangements in nature of the colors.

Expression is the great test and measure of ability in portraiture, and the success of the imitation is, therefore, dependent upon the personality of the imitator.

The more capable is the object of affecting pleasing effect, the more is skill and æsthetic perception demanded of the photographer.

It used to be said that it was impossible to get by photographic portraiture, anything but a studio face, but of late, and notably in the present Salon, portraiture has succeeded in bringing out the peculiar marks of individuality, the permanent characteristics which indicate the disposition. It has succeeded in "showing the mind's discernment in the face."

THE PERMANENCY OF PLATINOTYPE PRINTS

E. W. HAWES

AN article appeared in one of the photographic papers not long ago, in which the writer thereof contended that prints made by the platinotype process were as liable to change as silver prints ; in other words, that platinotype prints were not permanent. Photographers for some years past have been in the habit of regarding this process as the most per-

manent one on which they could make their prints, and it is to try and show that this process, if properly worked, will yield permanent prints, in the ordinary sense of the word, that this article is written.

It must be admitted that prints by any process, if the well-known rules for working them are not carried out, will alter; but in a silver print the actual image alters and deteriorates, whereas it is only the paper support, and not the platinum image, which alters in platinotype prints.

To prove this, let a platinum print, which has turned yellow, and whose image has turned a rusty brown color instead of the pure black characteristic of the process, be placed for a few minutes in the following solution :—

Chloride of lime	2 ounces.
Carbonate of soda	1½ "
Water	20 "

and, when removed, the print will be just as good and brilliant as when it was first made, thus showing that the image itself was unaltered. It is advisable after this bath to treat the prints in a weak hydrochloric acid bath for a few minutes, and then wash as usual.

Now, surely this proves that the apparent deterioration of the print was only due to the acid which was left in the paper turning the paper yellow, and so causing the print to look as if it had faded. The actual image is not altered in the least, and from this it may be fairly said that, provided means are taken to rid the papers from injurious matter, the prints may be considered absolutely permanent.

After development it is necessary to pass the prints into three acid baths for a period of five minutes each, composed as follows :

Hydrochloric acid	1 ounce.
Water	60 ounces.

Or, if preferred, citric acid may be used :

Citric acid	1 ounce.
Water	10 ounces

After this the print must be washed in plain water for about ten minutes, and then immersed in—

Carbonate of soda	1 ounce.
Water	20 ounces.

or five minutes, after which a final washing for ten minutes in water will complete the operation. This soda bath is intended to neutralize the acid in the pores of the paper.

If these very simple instructions are carried out, the platinotype worker will not be troubled with changing prints, but will be sure of prints which will remain things of beauty and a joy forever.—*British Journal of Photography.*

WHICH IS THE BEST INTENSIFIER?

THE virtues of the new persulphate of ammonia reducer make one long for a correspondingly good intensifier. Mercury seems to be the chemical most in favor, both with professional and amateur. The weak point of mercurial intensification is that its utility is somewhat limited. It fails to intensify the weaker details. True this may in some cases be of advantage, but for the majority of cases it is a disadvantage. It may be useful in compensating to some extent for the shortened scale of gradation in the negative or positive. Some varieties of plates, especially that kind used for lantern slide positives, and some brands of isochromatic plates, when exposed sufficiently to bring up detail in the shadows, get over-exposed in the high-lights; thus altering considerably the scale of gradations, which it is desirable to secure.

This flattening out of the picture may be in a measure helped by the mercurial method. If the plate is judiciously overtimed, that is, just such slight excess of exposure given, that the high lights are a little overcast, and then superficially intensified with bichloride of mercury, followed by ammonia, there will be a betterment in the plate.

The negative or positive is first bathed in water until the gelatine is well soaked, then placed in a weak solution of bichloride of mercury, until the thinner details only are bleached through to the back of the plate, then blackened with ammonia.

The mercurial method, however, is applied to every variety of

work, for wherever intensification is spoken of it is almost invariably mercury in some form or other.

The objection to mercury, when applied in the usual way to a thin negative where there is veil on the surface, is that the veiling goes on intensifying along with the rest of the picture.

When there is no veiling of the image there is too much building up of the high lights by the mercury and the weaker portions get scarcely any reinforcement. Where the image is well graded but lacking in vigor mercurial intensification may be advantageous.

This, however, is only an advantage in reducing the care necessary in printing from such a weak but rich negative. Such a negative, even without intensification, if printed in the shade, or under tissue paper, will give just as satisfactory results, as when intensified.

Where there is a veil on the negative and when the photographer will not be persuaded to use some other method of intensification than the mercurial, we would recommend him first to free the image from the veil before intensification, or in other words, slightly reduce the negative.

The veil referred to is the veil sometimes produced during development; chemical fog, not light fog. The reducer has no effect upon light fog.

The perchloride of iron reducer is very useful in cases of chemical fog (perchloride of iron, 4 grains; citric acid, 8 grains; water, 6 ounces). The affected plate is bathed in the solution until the image clears up, then washed for a few minutes and finally intensified. The perchloride of iron has the advantage of eliminating any trace of hypo from the film which may have been there by reason of insufficient washing. This hypo trace as is well known would cause stain when brought in contact with the mercury. If a white porcelain dish is used for the clearing process, one can better notice when the shadows are cleared up by seeing the white surface of the dish through them.

We have considered the mercurial intensification somewhat in detail, not because we are advocates of the method, but because, somehow or other, the amateur, and even the professional, will have no other,—either mercury and ammonia, or mercury and hypo, or mercury and sulphite of soda, or iodide of mercury. Mercury

and ferrousoxalate was recommended some years ago by Chapman Jones. It gave good results but required certain freedom from lime in the wash water which interfered with its action if allowed to remain.

Persulphate of uranium and ferricyanide of potassium has been found useful in some cases, building up the shadows better than mercury, and thus giving greater harmony of gradation. But in our experience nothing equals the silver intensification, but it is hardly known to workers, or else looked upon with suspicion, for the danger of encountering stain in the film.

In the collodion days silver intensification was generally practised, but when gelatine came into service the method as practised with wet plate work was not applicable, and the failure to secure good results led to its abandonment—until nowadays there is scarcely one in a hundred who has ever heard of it. With careful manipulation (and we only recommend silver to those who are extremely careful and clean in their work) the results obtained with silver are more permanent than by any other chemical. We have negatives intensified with silver by the method recommended by Mr. Cassebaum over ten years ago, which are unaffected by time.

These negatives, bear in mind, were first of all thoroughly fixed, then thoroughly washed from every trace of hyposulphite of soda before the silver intensifier was applied.

We fear, the *fatal facility* which modern methods encourage, will not recommend the silver intensifier, either to the amateur or the rushed professional photographer.

However, we recommend it to those who are desirous of regulating the action to suit the character of the original, to direct it so as to give sparkle to the high lights if necessary, or to pile up the density in general,—in other words to redevelop the negative as the wet plate worker used to call it.

The first thing to consider is whether the negative has been properly fixed. "To make assurance doubly sure," the negative may be refixed. The next is thorough elimination of hypo by thorough washing, then prelimenary bathing in the solution of perchloride of iron and citric acid, mentioned above.

The dish containing the perchloride of iron solution should be gently rocked, to prevent reticulation of the film.

After taking the negative out of this bath, it should be well

washed for several minutes under the tap and placed in a perfectly clean dish, and the following solution poured over it:

(A) Gallic acid..... ....80 grains.
Alcohol..... 1 ounce.

(B) Silver nitrate .....40 grains.
Distilled water..... 1 ounce.

Take one drachm of each, (A) and (B), to three ounces of distilled water.

Rock the plate in this solution until the proper degree of intensification has been reached; then wash again for a few minutes under the tap and place in a perfectly clean hyposulphite of soda solution (usual strength for negatives) for ten minutes or so: again most thoroughly wash for several hours in running water and the work is finished. This looks like a good deal of trouble but the results will be the reward.

The gallic acid is rather difficult of solution as recommended in the above formula and almost equally good results may be had by employing hydroquinone in its stead.

Hydroquinone.....60 grains.
Nitric or hydrochloric acid..... 3 drops.
Water..... .... 6 ounces.

One-half ounce of this diluted with two ounces of water and one drachm of nitrate of silver (40 grs. to ounce) added. Place the negative previous to the application of the hydroquinone silver in the preliminary bath as above or simply in very weak acid solution. A mixture of hydrobromic acid and nitric diluted with many times its bulk of water is an excellent acidifier. The silver intensifier cannot be effectively worked without the use of the preliminary acid bath. If the operator keeps every thing clean, fingers included, nothing is surer, nothing more permanent, nothing so beautiful as the silver intensifier.

ON LIGHT AND SHADE

ANDREW ROBERTSON, A. M.

THE beauty of all visible objects is best displayed in the light of nature, the sun, with reference to which every created being seems originally to have been constituted.

The characteristic features of this light are that it is single, bright, elevated, and small; as regards the angle it subtends with the eye, generally a diagonal, and always a descending light.

Objects in an interior, especially the human form and countenance, require a similar light, artificially produced, to display their beauty.

In proportion as the dimensions of the light are enlarged, or the number of lights increased; according as its direction ceases to be diagonal, or becomes either vertical or horizontal, but more especially an ascending light, will the beauty of objects generally be diminished. To demonstrate the truth of these propositions, the following experiments are suggested, presenting first that effect which is consistent with nature, therefore true and beautiful, contrasted with other effects which are unnatural, false, and destructive of beauty, in one word, *heretical*. For this purpose duplicate busts are preferable to the human face, being unchangeable in their form and expression, a comparison can be made of their different effects of light and shade with more accuracy than in the case of two individuals however much alike.

EXPERIMENT—FIRST.

In a room with a North aspect, having three or more windows, not exposed to the direct light of the sun, let every ray of light be excluded by blinds or shutters, except from the upper part of the middle window, say one or two rows of panes (from one-fourth to one-half of the window, as a much smaller light is needed on a bright day).

Let the light have free access to it, not intercepted by blinds, verandahs, or other obstructions, so that a person looking from the opposite side of the room may see nothing through the window, except the sky. The light must be carefully and effectually

excluded from all the other windows, so that the room would be in total darkness, but for the light admitted through the upper part of the middle window.

Let a white or stone-colored bust be placed on a table opposite, about as far from the window as the top of it is from the floor.

The effect of light and shade thus produced, being in accordance with that of nature, will probably be found that which is most favorable to the development of beauty in the human form or countenance, and consequently, in all representations of them by sculpture painting or photography, and if there be no intrinsic beauty in the person or object, still various accidental effects of light, shade and expression, may be produced which are often equivalent to beauty. This therefore is the light in which portrait painters invariably place their sitters, modified of course, according to circumstances.

Contrasted with the above, the following experiment may tend to show the injurious effect produced by the manner in which sculpture is generally lighted, and in which people often place themselves in a room, not aware how much their beauty might be heightened, or their want of beauty more than compensated in expression, without any trouble to themselves and with much satisfaction to their friends, merely by attending to the effect of light and shade.

EXPERIMENT—SECOND.

Let a duplicate of the same bust be placed on a table in the middle window, and facing the room or between two windows.

Let the spectator sit in the middle, between these two busts, so that his eye may be on a level with their chin, and compare the effect of light and shade upon the one, with the absence of both on the other.

The duplicate bust in the window will seem to be little better than an unmeaning, shapeless mass of plaster, clay, or marble, destitute of form, feature, or expression. On the contrary, the countenance of the other will beam with intelligence, it will seem almost alive.

The form of the features will be distinctly seen, and whatever beauty or expression it may possess will be fully developed.

But language cannot describe the visible, nor words convey to the mind any adequate idea of the difference produced by light and shade on the two busts thus placed.

Nothing but actual vision can avail to produce conviction. A single glance will convey more than volumes of words could express. Let the same experiment be applied to nature. Let two persons resembling each other take the place of the busts. The same effect will be produced, the one will be full of animation and expression, a fit subject for a picture ; the other altogether unfit for such a purpose. To a judicious choice of position, of light and shade, are our best portrait painters chiefly indebted for their success. That is, if permitted to exercise their own judgement, or if they have firmness to resist the peculiar fancies of their clients.

It may perhaps be asked, who would ever think of placing themselves, or of disposing a bust, or sculpture, in such a manner as here described in the dark.

Let anyone, however, only take the trouble to visit a gallery of sculpture ; he will find many of the productions of genius thus displayed, or rather buried, in darkness. Let him step into his own drawing-room, or call upon his friends, and he will find the ladies seated with their backs to the light, probably for convenience either of reading or work.

EXPERIMENT—THIRD.

Let the shutters of the middle window now be opened, the two busts remaining as before. The duplicate bust in the middle window, being now against the light from the opposite side of the room, will seem a mass of shadow, showing no kind of form whatever, except the contour or outline all around. Not that it is really darker than before, but the contrary.

It only seems darker, being now contrasted with skylight, instead of the dark window shutters.

Upon the other bust in the middle of the room the effect of light and shade will be much impaired. All the delicacies of form in the features will subside and the countenance will lose much of its expression.

From the increased light on the floor, and generally throughout the room, and from the greater expanse of the window itself, the shadows will be diluted into middle tint, their sharpness dissipated with gradations. All that before was shadow will now become mere darkness, which is only the absence of light and takes no shape. Shadow on the contrary, always possesses form ; the form of the object producing it, continued with that

of the object upon which it falls. It will be found essential in this inquiry to bear in mind this distinction between shadow and darkness. If this experiment be applied to nature, as in the preceeding instance, a further confirmation will be obtained of the effect described. It will be seen that a bust or figure ought invariably to be displayed under the influence of a single light, a contracted light, and always a high or descending light, for it may safely be asserted that a person having no pretensions either to beauty or expression, if judiciously placed, will be more interesting than the most beautiful object improperly lighted.

The number of aspects as to form, as well as light and shade on a bust or face, might be multiplied by viewing it all around from a higher or lower position; the spectator either looking down upon it, or up to it, more or less. The whole number thus obtained might again be multiplied by raising or depressing, that is by throwing backward or blending forward the face or bust itself, and going through the whole process again, thus producing a number of views all different from each other; each a study. A single bust, therefore, well and fully studied, would go far to render one an artist. Experience, observation, and common sense would do the rest. His eyes being thus opened he would in due time learn to see everything with an artists' sense of vision.

IMPORTANT PHOTOGRAPHIC PROBLEMS THAT REQUIRE INVESTIGATION

Paper read before the London and Provincial Photographic Association.

AFTER looking at the marvellous results of modern photographic work, one would almost wonder that there could be such things as any problems requiring investigation. The speed and quality of our plates, and the perfection to which the manufacturers have brought their printing papers, are such that one can hardly realise that, from a scientific point of view, such a small advance has been made in our knowledge,

during the past fifty years, upon such subjects as the action of light in the formation of the photographic image, or of what that image consists, and the question arises, "Are our photographic societies, especially the parent society, carrying out their duties when they allow such important problems to drift on year after year without, at least, some slight attempt at a systematic organized investigation on a thoroughly scientific basis?"

Of late years an attempt has been made to claim for photography a place among the arts, and to ignore its scientific basis almost entirely by placing the emulsions and printing papers on the same level as the colors of the artists' colorman.

Artists contend, and contend most truly, that photography is not, and never can be, an art. There is as much difference between photography and art as there is between the verbatim reports of our police courts and those marvellous examples of literature in which Sir Walter Scott threw a halo of romance over Scotland and her people. It is true that occasionally the police court will give us a character that, for true nobility and grandeur, the novelist cannot equal. So the camera will now and then produce an effect of light and shade that no artist could ever compete with, but in both cases the bulk of the pictures of life from the police courts and the representation of nature in our photographs have too heavy shadows.

Art is nothing more than dreamland, and an artist is a man who reproduces in his waking moments not what he really sees, but what it appears in the fantastic dreams of his imagination. But photography has done a great work by dragging art out of the sea of falsehood in which it was engulphed in the past. Before the days of photography few people really used their eyes, they accepted the artist's false drawing as correct; but directly the photograph began to teach the world the true representation of form then began a silent revolution in the art world, and there is no doubt that, from an educational point of view, photography has done a great work, because it has not only taught the artist correct drawing, but it has trained every one, from the Board-school child upwards, to use their eyes, and detect the difference between the true and the false in the representation of form.

We will now look at photography from a mere scientific standpoint, and, first, as to "light" itself in connection with its action on the photographic plate according to the absorption

theory of light. In passing through a transparent medium, the molecules of the latter take up the waves of certain periods, and the remainder pass through, giving the color of the medium. Now, if we take a plate coated with a slow emulsion (one that used to give a good ruby color in our old emulsion-making days), one can understand that the blue and more actinic rays taken up or absorbed in the film have been converted into the light action that has taken place on the particles of silver promide, and that the slow vibrations are allowed to pass through, thus giving the ruby color transmitted through the film. In this case theory seems supported by practice; but how about a rapid emulsion that transmits blue rays? The molecules of this film have taken up the waves of the slow period, and yet we obtain a much greater speed of plate, although the more rapid vibrations of the blue or actinic rays have passed through the film. How can we explain these slow vibrations, absorbed or taken up in the film, acting more rapidly on the particles of silver bromide?

When we photograph the spectrum, we have even greater difficulties to explain. If we throw a spectrum on a screen, and look at the blue portion through a piece of blue glass, we find that the glass stops those rays very little, in other words, it is transparent to them. And yet we know that, if we take a rapid plate which transmits blue rays, the blue rays in the spectrum to which the plate ought to be most transparent have been most active in their action on the silver bromide particles. Some one may say that it is because their action is based on a similar law of vibration to that of a tuning fork, which will communicate its vibrations to another of the same note. But, if that is so, why do not the red rays of the spectrum act more strongly on a slow film transmitting red or ruby rays than those at the blue end of the spectrum? I think you will agree with me that we have here a problem requiring investigation.

I now come to the question of the action of light on chloride of silver, on which are based our printing-out processes. The first thing we want to know is, of what does this photographic image consist? If we take some pure chloride of silver with a proper excess of silver nitrate, and expose it to light, we will find that it will assume a slate-blue tone and refuse to bronze; and, if it is treated with hyposulphite of soda, it will be almost entirely dissolved away. So our photographic image is not metallic silver

from the reduced chloride of silver, indeed the only part the chloride seems to play is that of an accelerator in the formation of the image.

But, if we add some organic matter to the chloride of silver and expose it to light, we shall find that it darkens usually to a dark-brown hue, and then becomes bronzed, which color is comparatively unaffected after fixing. This shows that the image consists of silver combined with colored organic matter. We now want to find out how much silver there is in this compound.

I think the best way to do this is to take a sheet of albumenised paper, and, on sensitising it, we will find that it will take up about twenty-eight grains of nitrate of silver. We will then expose it to light until it darkens all over to just short of the bronzing stage. Then, if we treat it as an ordinary albumenised paper print, we shall find in the washing waters about 14 or 15 gains of the silver, in the fixing bath another 10 grains or so, in the washing water after fixing about 2 grains, and in that blackened sheet of paper measuring 23 x 17 inches there will be barely a grain of silver left in the deposit.

That being so, can we call it a silver image at all? The fact appears to be that it is colored organic matter produced by the action of light on the silver in which it had previously been in combination ; and that, after the formation of that colored deposit, about 97 per cent. of the silver can be removed, although the whole 100 per cent. was necessary to produce it. If this is so, the next question is, What is the action of the gold of the toning bath? Is the gold simply deposited on the organic matter forming the image, or does it keep some of the silver from being removed in the hypo bath?—in other words, is the greater permanence of a gold-toned print due not only to the presence of the gold deposit, but to a locking-up (so to speak) of some of the silver as well? I think this is probably the case, and that some of the sub-cloride of silver is formed into an insoluble hyposulphite of silver, which is not redissolved in the excess of hyposulphite of soda in the fixing bath.

I think the following experiment will show this. If we allow sulphuretted hydrogen to act on a print, it will at first slightly darken the image until the bleaching of the organic matter commences. This same darkening action by sulphuretted hydrogen

takes place on sub-chloride of silver that has been treated with hyposulphite of soda.

As far as the permanence of the image is concerned, this extra silver is of course an advantage, but, unfortunately, I have found that the yellowing of the whites in old albumen prints is, in many cases, due to their having been in a toning bath. The gold prevents the whole of the silver being removed by the hypo from the white parts of the print, and the sulphuretted hydrogen in the atmosphere slowly converts this silver into a yellow sulphide. If you will make the following experiment, you will find that this is so. Take two pieces of sensitised albumen paper, and, without any exposure to light, wash them to remove the free silver nitrate. Then soak one piece in a toning bath for ten minutes, then fix and wash both pieces in the usual way. Now, if you expose those two pieces of paper to the action of sulphuretted hydrogen, you will find that on the one that has been in the toning bath there is a formation of yellow sulphide of silver, showing that the gold has prevented some of the silver being fixed out in the hypo bath, whereas the one that had not been in the toning bath has kept its purity of color.

We often see in the text-books that it is best to tone before fixing; but if the gold prevents the whole of the silver being removed from the whites of the print, and is the cause of the faded yellow photographs we so often see, would it not be better to fix first, to remove the silver, before depositing the gold on the image?

A HINT TO LANTERN SLIDE MAKERS

H. A. VAN DUSEN

IT is almost universally acknowledged that a first-class lantern slide from a gelatine plate requires much experience and skill on the part of the operator.

There is an inherent peculiarity in gelatine which makes it not specially suited for giving clear high lights, which is what one really desires in a slide despite the artistic twaddle about the beauty of veiled lights.

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POSITION WANTED by young unmarried man, as operator, printing and toning. Platinotype and carbon work. New York, Penna., or Ohio preferred. Samples and address, J. E. SILL, Lyndonville, N. Y.

Brilliancy is the great desideratum in slide making if one has any intention of showing his slides upon a screen. The opalescence of the gelatine may, it is true, add to the artistic effect in a window transparency or on a slide intended to be viewed like a transparency in the graphoscope, but any hazyiness would condemn a slide intended for exhibition.

A gelatine slide ought to be properly exposed and properly developed if you expect it to be considered by a judge, good.

Any doctoring, in the shape of reduction or intensification or even toning, is but a makeshift.

Endeavor, therefore, to get correct exposures, and to do this you must study your negatives, for upon the character of the negatives the tone of the slide depends. True, long exposure is liable to give warmer tones, but there is really very little lattitude of exposure allowable in judging time on a slide.

A very light excess of exposure will cause a blurring or slight solarization in the intense lights which would amount to nil in a negative but which on projection is greatly exaggerated amounting to a smudge or smear.

The tone of a properly exposed slide is satisfactory enough without any subsequent modification.

Though there are many developers which act most energetically and beautifully in the making of negatives, I have never found anything equal to ferrous oxalate developer for slide work.

(A) Oxalate of potassa,..... 2 ozs. (av.)
Chloride ammonium,.....40 grains.
Water,.....20 ozs.

(B) Sulphate of iron (cryst.),..... 4 dr. (av.)
Citric acid,..... 2 dr.
Water,.....20 ozs.

(C) Bromide potassium, ... 1 oz.
Water,..... 3 ozs.
Sugar,..... 1 dr.

Take equal parts of A and B and add five minims of C to each ounce of mixed developer.

It will be noticed that this oxalate developer is very much

weaker than that which was formerly used for negative work, and that the amount of acid is also in excess.

The acid and sugar act as retarders of the developing action, that is, slow it, while the bromide acts as a restrainer.

If the development should need acceleration make use of a stronger oxalate and iron solution; that is, the above with only one-fourth the amount of water.

Add a little of this strong solution to the developer to expedite the appearance of the image.

Of course do not presume that you may over-expose, and modify in the development the density of the image; for correct exposure must be aimed at, and the endeavor made to adjust the developer to the exposure. The stock solution of mixed ferrous oxalate being intended as a means to this end. It is only in this way that brilliancy of results may be attained.

It may perhaps be necessary to mention here that in mixing the developer for use the iron should always be added to the oxalate solution, never the oxalate to the iron. This latter proceedure would cause muddiness in the solution and practically ruin the developer.

I give this caution because the iron oxalate developer has been shelved; or as Grover Cleveland expressed it, "relegated to the confines of inoxuous desuetude."

NOTES

We have a number of beautiful prints made upon the McCollin Co's Perfection Blue Print Paper, which are most charming. The subjects being water scenes are specially adapted to this variety of printing paper. It is surprising that blue prints are not made use of by the modern school for securing artistic effects. Not only can the blue tone be modified to any degree from light azure to deep ceruleun, but by a sort of toning process be altered to a variety of tints. Green, which is very suitable for moonlight effect may be had by not printing so deep as usual, washing thoroughly and subjecting to a bath of sulphuric acid

and water, 1 drop to the ounce; and again washing sepia is obtained by first placing in a solution of a few grains of tannic acid in water and then in a weak alkaline bath. The tint may be deepened to any degree by repeating the operation. Hydrate of Potash gives a deep brown. Acetate of Lead gives violet tones. The prints should always be well washed after these toning operations, otherwise the white parts of the picture are apt to be tinged.

Mr. McCollin is the pioneer in America of the Blue Print Process and will be glad to furnish information to all who call upon him.

After the uses and tests through which the Air Brush has gone for years, it has proven very positively that it is in no sense a picture machine but an art tool. A new medium or method of distributing color, a soft brush, capable of fine, soft, pleasing effects, a long needed tool, a true help to artists.

The artist retains his individuality as with other tools. He can paint nature according to the talent and knowledge as he sees it, saving time and doing better work. The progressive artists are using the Air Brush with great success and financial benefit.

The Air Brush Manufacturing Company is a thoroughly reliable firm, and we take pleasure in recommending them to our readers, whom we advise to write for particulars and prices.

A recent announcement to the trade made by the Eastman Kodak Co. is one which will be of interest to Kodakers everywhere, and when it becomes widely understood will turn the scale of many a hesitating buyer in favor of the Kodak. If, in the past, there has been one strong point that could be made against the Kodak, it was the unavoidable waste of film which occured when one wished to make but one or two, or even a half dozen exposures. This anti-film argument will no longer be valid for the Eastman people are now furnishing cartridges of 6 exposures each for all Kodak sizes except the 1½ x 2 Pocket, and cartridges of 2 exposures each for the 3½ x 3½, 4 x 5 and 5 x 7. Thus equipped the amateur can work his instrument with convenience and economy whether it be for a couple of exposures at home, or for a hundred pictures on his vacation outing. Just at this season of the year when home portraiture, both by time exposure and flash-light, are so much in vogue, the small rolls will be highly appreciated.

They load in day-light in exactly the same manner that the dozen exposure rolls do, thus removing all need of the dark room except for developing. This is a long step in advance for film photography and is one which every amateur will surely appreciate.

Enlargements or Direct Large Negatives.—How often do we hear the question asked, "Do enlargements from small negatives translate the artistic qualties of the originals as well as direct large negatives?" We are inclined to think that a direct large negative would render the half-tones more beautifully than an enlargement from a small negative. In an enlargement the relation of the patches of light and shade is not by any means so harmonious as in a direct negative. There is always an unavoidable break, a falling off in the half-tones, so that up to a certain size it would be better to make direct negatives. But when large sizes are demanded the additional factors of increased expense of plate, camera, etc., enter into consideration, as well as the great increase in mechanical difficulties attending the production of large direct negatives.

Direct enlargements would require lenses of long foci to prevent distortion and to keep all the parts in relative sharpness, and failures to estimate the correct time count seriously when large plates are required.

Most excellent results in enlargements can be obtained by making an ordinary size negative; from which an enlarged positive is taken of the required size, and from this the desired negative for reproducing, The advantage of this plan is that the positive can be retouched, the imperfections removed or toned down, obscured parts sharpened, etc., so that the negative made from it by contact is greatly improved even over the original small negatives.

We have seen excellent work so made from small detective camera negatives.

LITERARY NOTES

"Enlargement's Competition," organized by the *Revue suisse de Photagraphie, Genève.—La Revue suisse de Photographie* organizes for next February, 1900, a Competition of enlarged Prints on

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Paper. This Competition is international and it is indifferently opened for amateurs and professionals.

The management of *Revue* (40, rue du Marché, Genève) will give all information about this Competition.

Photograms of 1899.—Compiled by the Editor and Staff of the *Photogram*, assisted by Mr. A. R. C. Carter; Dawban & Ward, London, Publishers.—This ever welcome annual with its wealth of beautiful illustrations showing the artistic progress in photography throughout the world, is made doubly interesting this year by the excellent critical remarks. The account of the pictures is given in a clear manner, and is most instructive to the photographer in search of the picturesque. The Salon pictures both in Europe and in the United States receive special attention. All who are anxious to be in line with the art movement should secure this book.

Amateur Photography. Fifth Edition, Revised and Enlarged; W. I. Lincoln Adams, author of "Lights and Shadows," etc.; The Baker & Taylor Co., 5 E. 16th St., New York.—The continued demand for this little manual has necessitated another edition, and the author has taken the opportunity to revise his work so as to make it up-to-date.

It is just such a book as the beginner needs; having only that under consideration which is of value to him in making progress in the art. The various apparatus are described and guidance given for the selection of lenses, cameras, etc., as well as full instructions in the manipulations of the dark-room, printing-room, portraiture, instantaneous work, flash light photography, etc.

RECENT PATENTS RELATING TO PHOTOGRAPHY

634,977. Holder for printing films; Frederic Bank, Cincinnati, O.
634,881. Photographic camera; Thomas R. Dallmeyer, Lon., Eng.
635,253. Photochromoscope or photochromoscope-camera, Frederic E. Ives, Phila., Pa.
634,972. Camera shutter; Wm. H. Witham, London, Eng.

635,466. Kinetographic camera; Alfred Darling, Brighton, assignor of one-half to A. Wrench, London, England.

636,036. Locking attachment for photographic apparatus; Edward G. Goodell and W. B. Haskins, Detroit, Mich.

636,319. Transparent picture, Paul R. Camp, Marietta, Ga.

636,717. Consecutive view apparatus; Herman Casler, Canastoto, N. Y.

636,715. Consecutive view apparatus; Herman Casler, Canastota, N. Y., assignor to American Mutoscope Co., of New Jersey.

636,716. Film-feeding mechanism for consecutive view apparatus, Herman Casler and J. A. Pross, Canastota, N. Y.

636,500. Consecutive view apparatus, Wm. K. L. Dickson, assignor to American Mutoscope and Biograph Company, New York, N. Y.

636,642. Consecutive view apparatus; Wm. K. L. Dickson, assignor to American Mutoscope and Biograph Company, New York, N. Y.

636,474. Machine for mounting photographic prints, etc.; Wm. R. Tobias, Perth Amboy, N. J.

31,814. Design, closure for photographic plate holders; Norris Bull, Rochester. N. Y.

TRADE-MARKS

33,641. Certain named photographic supplies; Wm. F. Carlton, Rochester, N. Y.

Copies of above patents may be obtained for ten cents each, by addressing John A. Saul, Solicitor of Patents, Fendall Building, Washington, D. C.

635,472. Photographic objective; Carl P. Goerz and E. von Hoegh, Friedenau, Germany.

635,473. Three-lens system for photographic purposes; Carl P. Goerz and E. von Hoegh, Friedenau, Germany.

535,497. Magazine camera; Thomas E. Meadowcroft, London, England.

635,567. Flash-light lamp; George R. Miller, Easton, Pa.

636,224. Photographic shutter; Harvey B. Carlton and E. F. Hathaway, assignors to Rochester Camera and Supply Company, Rochester, N. Y.